REMARKS

Applicant notes with appreciation the indication of allowable subject matter in claims 6-8. For the reasons discussed below, it is believed that the remaining pending claims 1-5 and 14-19 are likewise allowable relative to the applied prior art.

Turning now to the remaining issues raised in the Official Action, claims 1-3 were rejected under 35 USC §102(e) as allegedly being anticipated by TOCHIO 6,215,567. That rejection is respectfully traversed, for the following reasons.

The present invention provides a wavelength-division multiplexed optical transmission system that is capable of keeping the correlation of data patterns among wavelength channels at a low level, preventing large XPM and XGM from occurring when the correlation is strong, and assuring a stable transmitting quality. Consequently, the present invention includes "a device for reducing mutual interference among a plurality of wavelength channels which are transmitted through a same optical fiber transmitting line" as recited in claim 1.

However, TOCHIO does not disclose or suggest preventing large XPM and XGM from occurring when the correlation is strong. TOCHIO discloses instead that "when inputted multiplexed signals from the multiplexing units 14-1 through 14-4 as shown in FIG. 11, the FIFO memory 15 can synchronize a timing of the data and output the signals to the respective E/O converting units 16-1

through 16-4 (refer to a time t21)". See column 13, lines 47-51 (emphasis added).

Accordingly, TOCHIO (column 19, lines 4-46, column 20, lines 1-37 and Fig. 17) does not disclose "a device for reducing mutual interference among a plurality of wavelength channels which are transmitted through a same optical fiber transmitting line".

Further, TOCHIO (column 19, lines 4-46, column 20, lines 1-37 and Fig. 17) does not disclose "a unit for mutually differing transmitting frame phases between at least two or more wavelength channels among a plurality of wavelength channels which are transmitted through a same optical fiber transmitting line; a unit for inserting mutually differing dummy data patterns which are different each other among the wavelength channels; and a unit for scrambling said electric signals with mutually different scrambling patterns", as is recited in claim 3.

It is therefore believed that the rejection of claims 1 and 3 for anticipation based on TOCHIO should be withdrawn.

Claim 2 depends directly from independent claim 1. Accordingly, claim 2 is likewise patentable.

Claims 4 and 5 were rejected under 35 USC §103(a) as allegedly being unpatentable over TOCHIO in view of HADANO (EP 0543327). That rejection is also respectfully traversed, for the following reasons.

Claim 4 depends indirectly from independent claim 1. As referred to above, TOCHIO (column 19, lines 4-46, column 20, lines 1-37 and Fig. 17) does not disclose "a device to reducing mutual interference among a plurality of wavelength channels which are transmitted through a same optical fiber transmitting line".

HADANO describes a variable delay unit (column 3, lines 12-30 and abstract). However, the variable delay unit of HADANO is designed such that "it becomes possible to use the same high speed signal interface unit and generalize the high speed signal interface unit, even though the low speed STM-m electric signal interface unit is differentiated by various station's configuration" (See column 3, lines 37-43). The variable delay unit of HADANO changes a frame phase only when station's structures are changed.

Thus, HADANO does not disclose or suggest "a wavelength-division multiplexed optical transmission system capable of keeping the correlation of data patterns among wavelength channels to the low level, preventing large XPM and XGM from occurring when the correlation is strong, and assuring a stable transmitting quality", whether considered alone or in combination with TOCHIO.

In addition, HADANO discloses a synchronous optical multiplexing system having an STM-m (Synchronous Transport Module signal). However, HADANO merely discloses a frame phase updating

unit for varying a frame phase of STM-m signals (column 1, lines 1-7). As shown in Figure 3 in HADANO, STM signal is time-division multiplexing which is a different technology from a wavelength-division as recited in claims 4 and 5.

It would not have been obvious to incorporate frame phase updating unit of HADANO in the system of TOCHIO, because TOCHIO does not suggest the occurrence of mutually differing transmitting frame phases.

For the foregoing reasons, it is believed that claims 4 and 5 are allowable relative to the proposed combination of TOCHIO in view of HADANO.

Claims 14-19 were rejected under 35 USC §103(a) as being allegedly being unpatentable over TOCHIO in view of KATTA et al. 5,706,346. That rejection is also respectfully traversed, for the following reasons.

KATTA et al. disclose a dummy pattern generator (Fig. 1A, column 6, lines 35-67). However, KATTA et al. disclose a dummy pattern generator for a scrambling apparatus, which is a different technology from transmitting through a same optical fiber transmitting line. It would not have been obvious to incorporate the dummy pattern generator of KATTA et al. in the system of TOCHIO.

From the above, it is believed also to be apparent that claims 14-19 are allowable relative to the proposed combination

of references applied against those claims in the outstanding Official Action.

In view of the foregoing remarks, therefore, it is believed that this application is now in condition for allowance, with claims 1-5 and 14-19 presently pending. Allowance and passage to issue on that basis are accordingly respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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